TABLE 3

Groundwater Profiling Boreholes and Monitoring Wells Specifications OU1 New Cassel/Hicksville Ground Water Contamination Site

Nassau County, NY February 2016

Comments

Transect No.	Location	No. of Wells at Location	Nearby Existing Wells	Rationale	Overall the wells are needed to obtain data on the width and thickness of the treatment area (100 ppb) in order to size the capture zone and optimize the placement of treatment wells for mass removal
T1	MW-19	1	None	Installation of this monitoring well may be necessary to obtain design parameters pending the reusits of PDI-20.	Obtain data to identify the western edge of the western treatment area in order to design the northern portion of the western treatment system.
Tl	PDI-20/MW-20	3	None	To obtain data necessary to design treatment well screens including depth intervals, overall length, and to demarcate the 100-ppb ROD benchmark boundary(s) required to optimize the design.	Description is good but I would add:
T1	MW-21	1	TMW-9	Installation of this monitoring well may be necessary to obtain design parameters pending the reuslts of PDI-20.	Obtain data to identify the eastern edge of the western treatment area in order to design the northern portion of the western treatment system.
T2	PDI-22/MW-22	3	TMW-2	To obtain data necessary to design treatment well screens including depth intervals, overall length, and to demarcate the 100-ppb ROD benchmark boundary(s) required to optimize the design. Nearby TMW-2 had significant concentrations down to depth, PDI-22 will go deeper than TMW-2.	Description is good but I would add that the data is for the design of the western edge of the central portion of the western treatment area. Als there were three wells listed in the previous table. 3 wells may be needed because the contamination extends over a relatively large depth ran
T2	PDI-23/MW-23	3	EX-2	To obtain data necessary to design treatment well screens including depth intervals, overall length, and to demarcate the 100-ppb ROD benchmark boundary(s) required to optimize the design	Description is good but I would add:optimize design for the central portion of the western treatment system. Intermediate well - Obtain data to optimize treatment well placement both horizontally and vertically. Shallow well - Obtain data to confirm the top of the treatment zone. Deep well - Obtain data to confirm the bottom of the treatment zone.
T2	MW-24	1	TMW-3D	Installation of this monitoring well may be necessary to obtain design parameters pending the reuslts of PDI-23.	Obtain data to identify the eastern edge of the western treatment area in order to design the central portion of the western treatment system.
T2	MW-25	1	MW-12, TMW-1	Installation of this monitoring well may be necessary to obtain design parameters pending the reuslts of PDI-22.	Obtain data to identify the western edge of the western treatment area in order to design the central portion of the western treatment system.
Т3	MW-26	1	MW-13	To obtain data necessary to determine required radius of influence for extraction wells, design pumping rates, and to confirm capture of the 100-ppb ROD benchmark boundary required to optimize the design.	This description is different from the others - I would revised to remove ROI and pumping rate reference. Obtain data to identify the western edge of the western treatment area in order to design the southern portion of the western treatment system.
Т3	PDI-27/MW-27	3	None	To obtain data necessary to design treatment well screens including depth intervals, overall length, and to demarcate the 100-ppb ROD benchmark boundary(s) required to optimize the design.	Description is good but I would add:optimize design for the southern portion of the western treatment system. Intermediate well - Obtain data to optimize treatment well placement both horizontally and vertically. Shallow well - Obtain data to confirm the top of the treatment zone. Deep well - Obtain data to confirm the bottom of the treatment zone.
Т3	PDI-28/MW-28	2	MW-7, MW-8	To obtain data necessary to design treatment well screens including depth intervals, overall length, and to demarcate the 100-ppb ROD benchmark boundary(s) required to optimize the design. Based on the upgradient TMW-3 results, a deeper sample location is needed.	
T4	MW-29	1	None	To obtain data necessary to demarcate the 100-ppb ROD benchmark boundary required to optimize the design.	Obtain data to identify the western edge of the central treatment area in order to design the northern portion of the central treatment system.
T4	PDI-30/MW-30	3	MW-5, MW-6	To obtain data necessary to design treatment well screens including depth intervals, overall length, and to demarcate the 100-ppb ROD benchmark boundary(s) required to optimize the design.	Description is good but I would add:optimize design for the northern portion of the central treatment system. Intermediate well - Obtain data to optimize treatment well placement both horizontally and vertically. Shallow well - Obtain data to confirm the top of the treatment zone. Deep well - Obtain data to confirm the bottom of the treatment zone.
T4	MW-31	1	MW-5, MW-6	Installation of this monitoring well may be necessary to obtain design parameters pending the reuslts of PDI-30.	Obtain data to identify the eastern edge of the central treatment area in order to design the northern portion of the central treatment system.
T5	PDI-32/MW-32	3	MW-1 to MW-4, MW-10	To obtain data necessary to design treatment well screens including depth intervals, overall length, and to demarcate the 100-ppb ROD benchmark boundary(s) required to optimize the design.	Description is good but I would add:optimize design for the central portion of the central treatment system. Intermediate well - Obtain data to optimize treatment well placement both horizontally and vertically. Shallow well - Obtain data to confirm the top of the treatment zone. Deep well - Obtain data to confirm the bottom of the treatment zone.
T5	MW-33	2	TMW-5	Installation of this monitoring well may be necessary to obtain design parameters pending the reuslts of PDI-32.	Obtain data to identify the eastern edge of the central treatment area in order to design the central portion of the central treatment system.
Т6	MW-34	1	None	Installation of this monitoring well may be necessary to obtain design parameters pending the reuslts of PDI-35.	Obtain data to identify the western edge of the central treatment area in order to design the southern portion of the central treatment system.
Т6	PDI-35/MW-35	3	None	To obtain data necessary to design treatment well screens including depth intervals, overall length, and to demarcate the 100-ppb ROD benchmark boundary(s) required to optimize the design.	Description is good but I would add:optimize design for the southern portion of the central treatment system. Intermediate well - Obtain data to optimize treatment well placement both horizontally and vertically. Shallow well - Obtain data to confirm the top of the treatment zone. Deep well - Obtain data to confirm the bottom of the treatment zone.
Т6	MW-36	1	None	Installation of this monitoring well may be necessary to obtain design parameters pending the reuslts of PDI-35.	Obtain data to identify the eastern edge of the central treatment area in order to design the southern portion of the central treatment system.
Т7	MW-37	1	None	To obtain data necessary to determine required radius of influence for extraction wells, design pumping rates, and to confirm capture of the 100-ppb ROD benchmark boundary required to optimize the design.	Revise description to match other wells (i.e. remove ROI reference). Obtain data to identify the western edge of the eastern treatment area in order to design the northern portion of the eastern treatment system.

tom would get rid of 37 before we rid of 43.

Т7	PDI-38/MW-38	4	None	To obtain data necessary to design treatment well screens including depth intervals, overall length, and to demarcate the 100-ppb ROD benchmark boundary(s) required to optimize the design.	Description is good but I would add:optimize design for the northern portion of the eastern treatment system. Intermediate well - Obtain data to optimize treatment well placement both horizontally and vertically. Shallow well - Obtain data to confirm the top of the treatment zone. Deep well - Obtain data to confirm the bottom of the treatment zone.
Т7	MW-39	1	B-9	To obtain data necessary to determine required radius of influence for extraction wells, design pumping rates, and to confirm capture of the 100-ppb ROD benchmark boundary required to optimize the design. Note: TMW-7 has ~11,000 ppb of PCE	Revise description to match other wells (i.e. remove ROI reference). Obtain data to identify the eastern edge of the eastern treatment area in order to design the northern portion of the eastern treatment system.
Т8	MW-40	1	EX-1	Installation of this monitoring well may be necessary to obtain design parameters pending the reuslts of PDI-41.	Revise description to match other wells (i.e. remove ROI reference). Obtain data to identify the western edge of the eastern treatment area in order to design the central portion of the eastern treatment system.
Т8	PDI-41/MW-41	3	EX-1	To obtain data necessary to design treatment well screens including depth intervals, overall length, and to demarcate the 100-ppb ROD benchmark boundary(s) required to optimize the design.	Description is good but I would add:optimize design for the central portion of the eastern treatment system. Intermediate well - The existing EX-1 well can serve as the intermediate well. Shallow well - Obtain data to confirm the top of the treatment zone. Deep well - Obtain data to confirm the bottom of the treatment zone.
Т8	MW-42	1	EX-1	To obtain data necessary to determine required radius of influence for extraction wells, design pumping rates, and to confirm capture of the 100-ppb ROD benchmark boundary required to optimize the design.	Revise description to match other wells (i.e. remove ROI reference). Obtain data to identify the eastern edge of the eastern treatment area in order to design the central portion of the eastern treatment system.
Т9	MW-43	1	MW-17	Installation of this monitoring well may be necessary to obtain design parameters pending the reuslts of PDI-44.	I would keep this well. Revise description to match other wells (i.e. remove ROI reference). Obtain data to identify the western edge of the eastern treatment area in order to design the southern portion of the eastern treatment system.
Т9	PDI-44/MW-44	2	MW-17	To obtain data necessary to design treatment well screens including depth intervals, overall length, and to demarcate the 100-ppb ROD benchmark boundary(s) required to optimize the design.	Description is good but I would add:optimize design for the southern portion of the eastern treatment system. Intermediate well - The existing MW-17D well can serve as the intermediate well. Shallow well - The existing MW-17S well can serve as the shallow well. Deep well - Obtain data to confirm the bottom of the treatment zone.
Т9	MW-45	1	MW-17	Installation of this monitoring well may be necessary to obtain design parameters pending the reuslts of PDI-44.	I would keep this well. Revise description to match other wells (i.e. remove ROI reference). Obtain data to identify the eastern edge of the eastern treatment area in order to design the southern portion of the eastern treatment system.

42 over 39.

tom prefers to keep 40

a well on either side of mw-17 (now pdi-44) will tell us whether to move the placement of the extraction well (the plume). At the southern edge you have less information because less wells. The

Notes:

ft-bgs = feet below ground surface

* Water table estimated to be at a depth of 40 feet. Profiling should extend to the total depth indicated, unless screening results indicate deeper samples are necessary.

Targeted screen zones:

S = shallow well screened < 175 ft-bgs

I = intermediate well screened between 175 and 250 ft-bgs

D = deep well screened >250 ft-bgs

NS = not sampled

VPB = vertical profile borehole

Centerline vertical profile boreholes should be completed first to guide in setting screens in the monitoring wells and sampling depths in the profile boreholes along the margins of the plumes.

The locations of Transects T1 through T9 intersecting lines of IWVS or groundwater extraction wells within the plumes are shown on Figure 3.